***THURSDAY, 8.8.24***

**ENTRY WORK:**

Introduce ourselves to each other.

Discuss the course overview, syllabus, requirements, and rules/procedures for this class.

Join Google Classroom at classroom.google.com. The class code is **rmlsvmx.**

**CHAPTER 1: *Functions and Graphs***

**INSTRUCTIONAL OBJECTIVES:**

* Define a *relation*.
* Define a *function*.
* Perform operations with functions, addition, subtraction, multiplication, division, and composition.

**Technology:** Graphing calculator (TI-83 or TI-84).

**CLASSWORK/HOMEWORK:**

1. At your next class meeting, turn in your completed, signed, and dated *Classroom/Group Procedures Agreement*.
2. **PRE-ASSESSMENT:**

**Choose the best answer for each question. Explain.**

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| |  |  |  | | --- | --- | --- | | **1.** | Which of the relations below is a function? | | | **Choose:**  Top of Form  {(2,3), (3,4), (5,1), (6,2), (2,4)} {(2,3), (3,4), (5,1), (6,2), (7,3)} {(2,3), (3,4), (5,1), (6,2), (3,3)}  Bottom of Form |  | |
| |  |  |  | | --- | --- | --- | | **2.** | Given the relation *A* = {(5,2), (7,4), (9,10), ( *x*, 5)}.  Which of the following values for *x* will make relation *A* a function? |  | | **Choose:**  Top of Form  7 9 4  Bottom of Form | | |
| |  |  |  |  | | --- | --- | --- | --- | | **3.** |  | The following relation is a function. {(10,12), (5,3), (15, 10), (5,6), (1,0)} | | |  | **Choose:**  Top of Form  True False  Bottom of Form | | |
| |  |  |  | | --- | --- | --- | | **4.** | Which of the relations below is a function? | | | **Choose:**  Top of Form  {(1,1), (2,1), (3,1), (4,1), (5,1)} {(2,1), (2,2), (2,3), (2,4), (2,5)} {(0,2), (0,3), (0,4), (0,5), (0,6)}  Bottom of Form |  | | |
| |  |  |  | | --- | --- | --- | | **5.** | The graph of a relation is shown on the next page. Is this relation a function? | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic3.gif | | **Choose:**  Top of Form  Yes No Cannot be determined from a graph  Bottom of Form | | |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **6.** |  | Is the relation depicted in the chart below a function?   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **X** | 0 | 1 | 3 | 5 | 3 | 9 | | **Y** | 8 | 9 | 10 | 6 | 10 | 7 | | | |  | **Choose:**  Top of Form  Yes   No   Cannot be determined from a chart  Bottom of Form | | |
| |  |  |  | | --- | --- | --- | | **7.** | The graph of a relation is shown on the next page.  Is the relation a function? | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic4.gif | | **Choose:**  Top of Form  Yes No Cannot be determined from a graph  Bottom of Form | | |

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| |  |  |  |  | | --- | --- | --- | --- | | **9.** | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic5.gif | The graph of a relation is shown at the left. Is the relation a function? | | |  | **Choose:**  Top of Form  Yes No  Cannot be determined from a graph  Bottom of Form | |
| |  |  |  | | --- | --- | --- | | **10.** | The graph of a relation is shown at the right. Is the relation a function? | http://www.regentsprep.org/regents/math/algebra/ap3/fixpic6.gif | | **Choose:**  Top of Form  Yes   No Cannot be determined from a graph  Bottom of Form | |

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| |  |  |  | | --- | --- | --- | | **11.** | Given *f* (*x*) = 3*x* + 7, find f (5). | | | **Choose:**  Top of Form  15  22  42  Bottom of Form |  | | | | |
| |  |  |  | | --- | --- | --- | | **12.** | Given *f* (*x*) = 2*x*² - 3*x* + 6, find f (2.5). | | | **Choose:**  Top of Form  11 23.5  76  Bottom of Form |  | | | | |
| |  |  |  | | --- | --- | --- | | **13.** | Which graph represents a function? | | | **Choose:**  Top of Form  http://www.regentsprep.org/regents/math/algebra/ap3/FuncPr67.gif              http://www.regentsprep.org/regents/math/algebra/ap3/FuncPr68.gif  http://www.regentsprep.org/regents/math/algebra/ap3/FuncPr69.gif                 http://www.regentsprep.org/regents/math/algebra/ap3/FuncPr70.gif  Bottom of Form |  | | | | |
| **14.** | | Given *f* (*x*) = 2x + 3, g(x) = 3x2, and h(x) = 4, find the following:   1. f (2) = \_\_\_\_\_\_\_\_\_\_\_\_ 2. g (2) = \_\_\_\_\_\_\_\_\_\_\_\_ 3. h (2) = \_\_\_\_\_\_\_\_\_\_ 4. (f + g) (x) = \_\_\_\_\_\_\_\_\_\_\_ 5. (fg) (x) = \_\_\_\_\_\_\_\_\_\_\_ 6. (f/h) (x) = \_\_\_\_\_\_\_\_\_\_ 7. (f – g) (-1) = \_\_\_\_\_\_\_\_\_ 8. (gf) (3) = \_\_\_\_\_\_\_\_\_\_\_\_ 9. f(g(x)) = \_\_\_\_\_\_\_\_\_\_ 10. (f o g) (x) = \_\_\_\_\_\_\_\_\_\_ 11. g(f(x)) = \_\_\_\_\_\_\_\_\_\_\_\_ 12. (g o f) (x) = \_\_\_\_\_\_\_\_\_\_\_ 13. (f o g) (-1) = \_\_\_\_\_\_\_\_\_\_\_ 14. (h o f) (-123) = \_\_\_\_\_\_\_\_\_\_   ***TUESDAY, 8.13.24***  **CLASS WORK/HOMEWORK:**   1. Turn in in your signed and dated *Classroom/Group Procedures Agreement*. 2. Discuss the pre-assessment. | |
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